

Examiner's Amendment

1. An examiner's amendment to the record is attached. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Timothy R. Gerlach (Reg. 57,548) on October 03, 2011.

3. In the Claims:

Please amend the claims as attached

1. (Currently Amended) A method for registering a mobile object with a foreign network, comprising:

moving a mobile object from a home network to a foreign network in response to unavailable resources at the home network, the mobile object being computer language code operable to be **stored in non-transitory memory and** executed by or executed on the home or foreign networks;

executing the mobile object on a first virtual machine at a first router on the foreign network;

generating a care-of-name that identifies the mobile object in the foreign network, the care-of-name generated at a foreign object agent located on the foreign network, wherein the care-of-name comprises a fixed orthogonal object

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name associated with the mobile object and an extension name to uniquely identify the mobile object on the foreign network;

communicating the care-of-name to a home object agent located on the home network; and

generating a mobility binding for the mobile object at the home object agent, the mobility binding including the care-of-name.

2. (Original) The method of Claim 1, further comprising providing an object name associated with the mobile object to the foreign object agent to create the care-of-name.

3. (Canceled)

4. (Original) The method of Claim 1, further comprising the home object agent operable to maintain network location information for the mobile object.

5. (Original) The method of Claim 1, further comprising:
discovering the foreign object agent on the foreign network; and
receiving an address associated with the foreign object agent at the mobile object.

6. (Original) The method of Claim 1, further comprising locating the mobile object on the foreign network by using the care-of-name associated with the mobility binding.

7. (Original) The method of Claim 1, further comprising determining if the mobile object is authorized to negotiate with the foreign object agent based on object credentials associated with the mobile object.

8. (Original) The method of Claim 1, further comprising:
determining if the mobile object is authorized to negotiate with the foreign object agent based on object credentials associated with the mobile object; and
providing authorization for the foreign object agent to communicate with the home object agent based on agent credentials associated with the foreign object agent if the mobile object is authorized to negotiate with the foreign object agent.

9. (Original) The method of Claim 1, further comprising:
determining if the mobile object is authorized to negotiate with the foreign object agent based on object credentials associated with the mobile object;
providing authorization for the foreign object agent to communicate with the home object agent based on agent credentials associated with the foreign object agent if the mobile object is authorized to negotiate with the foreign object agent; and
authenticating the object credentials at the home object agent to create the mobility binding for the mobile object if the foreign object agent receives authorization to communicate with the home object agent.

10. (Original) The method of Claim 1, further comprising:
copying the mobile object to create a duplicate mobile object on a second virtual machine at a second router located on the foreign network; and
creating a duplicate mobility binding at the home agent for the duplicate mobile object by obtaining a duplicate care-of-name from the foreign object agent.

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11. (Original) The method of Claim 1, further comprising:
moving a portion of the mobile object to a second virtual machine at a second router located on the foreign network; and
creating a secondary mobility binding at the first router for the portion of the mobile object by obtaining a secondary care-of-name from the foreign object agent.

12. (Currently Amended) A method for registering a mobile object with a foreign network, comprising:
moving a mobile object from a home network to a foreign network in response to unavailable resources at the home network, the mobile object being computer language code operable to be **stored in non-transitory memory and** executed by or executed on the home or foreign networks;
executing the mobile object on a virtual machine at a router on the foreign network;
generating a care-of-name that identifies the mobile object in the foreign network, the care-of-name generated at a foreign object agent located on the foreign network, wherein the care-of-name comprises a fixed orthogonal object name associated with the mobile object and an extension name to uniquely identify the mobile object on the foreign network;
communicating the care-of-name to a home object agent located on the home network;
generating a mobility binding for the mobile object at the home object agent, the mobility binding including the care-of-name;
locating the mobile object on the foreign network by using the care-of-name associated with the mobility binding; and
determining a care-of-address for the mobile object based on the care-of-name.

13. (Canceled)

14. (Previously Presented) The method of Claim 12, further comprising:
generating the care-of-address associated with the care-of-name for the
mobile object at the foreign object agent; and
establishing a tunnel between the home object agent and the mobile
object by using the care-of-address as an endpoint of the tunnel.

15. (Original) The method of Claim 14, wherein the care-of-address
comprises an Internet Protocol address.

16. (Original) The method of Claim 12, further comprising the home
object agent operable to maintain network location information for the mobile
object.

17. (Currently Amended) A router comprising a virtual machine
configured to host a mobile object, the ~~mobile object router~~ operable to:
~~move~~ **receive the mobile object after being moved** from a home
network to a foreign network in response to unavailable resources at the home
network;

execute the mobile object on the foreign network;
negotiate **for the mobile object** with a foreign object agent located on
the foreign network for a care-of-name that identifies the mobile object in the
foreign network, the care-of-name comprises a fixed orthogonal object name
associated with the mobile object and an extension name that uniquely
identifies the mobile object on the foreign network; and
obtain a mobility binding **for the mobile object** from a home object
agent located on the home network by using the care-of-name **communicated**

to the home object agent located on the home network, the mobility binding is generated by the home object agent and includes the care-of-name;

wherein the mobile object is computer language code operable to be **stored in non-transitory memory and** executed by or executed on the home or foreign networks.

18. (Currently amended) The router of Claim 17, **further comprising wherein** the mobile object **is** operable to provide an object name associated with the mobile object to the foreign object agent.

19. (Canceled)

20. (Original) The router of Claim 17, further comprising the home object agent operable to:
host the mobile object on the home network; and
maintain network location information for the mobile object.

21. (Currently amended) The router of Claim 17, **further comprising wherein** the mobile object **is** operable to:
discover the foreign object agent on the foreign network through an agent solicitation message; and
receive an address associated with the foreign object agent.

22. (Original) The router of Claim 17, further comprising an agent virtual machine configured to host the foreign object agent.

23. (Currently amended) The router of Claim 17, **further comprising wherein** the mobile object **is** operable to:

create a duplicate mobile object operable to be hosted on a duplicate virtual machine at a duplicate router on the foreign network; and

obtain a duplicate mobility binding from the home object agent by receiving a duplicate care-of-name from the foreign object agent.

24. (Currently amended) The router of Claim 17, **further comprising wherein** the mobile object **is** operable to:

move a portion of the mobile object to a duplicate virtual machine at a duplicate router on the foreign network; and

obtain a secondary mobility binding at the router for the portion of the mobile object by obtaining a secondary care-of-name from the foreign object agent.

25. (Currently amended) The router of Claim 17, ~~further comprising:~~
wherein the mobile object **is** operable to send object credentials to the foreign object agent to obtain authorization to negotiate with the foreign object agent; and

wherein the mobile object **obtains** ~~obtaining~~ the mobility binding if the home object agent provides authorization for the foreign object agent to communicate with the home object agent and authenticates object credentials associated with the mobile object.

26. (Currently Amended) Logic encoded in **non-transitory memory media** for registering a mobile object with a foreign network, the logic operable to perform the following steps:

move a mobile object from a home network to a foreign network in response to unavailable resources at the home network, the mobile object being computer language code operable to be executed by or executed on the home or foreign networks;

executing the mobile object on a first virtual machine at a first router on the foreign network;

generating a care-of-name that identifies the mobile object in the foreign network, the care-of-name generated at a foreign object agent located on the foreign network, wherein the care-of-name comprises a fixed orthogonal object name associated with the mobile object and an extension name to uniquely identify the mobile object on the foreign network;

sending the care-of-name to a home object agent located on the home network; and

generating a mobility binding for the mobile object at the home object agent, the mobility binding including the care-of-name.

27. (Original) The logic of Claim 26, further comprising providing an object name associated with the mobile object to the foreign object agent to create the care-of-name.

28. (Canceled)

29. (Original) The logic of Claim 26, further comprising the home object agent operable to maintain network location information for the mobile object.

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30. (Original) The logic of Claim 26, further comprising:
discovering the foreign object agent on the foreign network; and
receiving an address associated with the foreign object agent at the
mobile object.

31. (Original) The logic of Claim 26, further comprising determining if
the mobile object is authorized to negotiate with the foreign object agent based
on object credentials associated with the mobile object.

32. (Original) The logic of Claim 26, further comprising:
determining if the mobile object is authorized to negotiate with the
foreign object agent based on object credentials associated with the mobile
object; and
providing authorization for the foreign object agent to communicate with
the home object agent based on agent credentials associated with the foreign
object agent if the mobile object is authorized to negotiate with the foreign
object agent.

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33. (Original) The logic of Claim 26, further comprising:
determining if the mobile object is authorized to negotiate with the foreign object agent based on object credentials associated with the mobile object;
providing authorization for the foreign object agent to communicate with the home object agent based on agent credentials associated with the foreign object agent if the mobile object is authorized to negotiate with the foreign object agent; and
authenticating the object credentials at the home object agent to create the mobility binding for the mobile object if the foreign object agent receives authorization to communicate with the home object agent.

34. (Original) The logic of Claim 26, further comprising:
copying the mobile object to create a duplicate mobile object on a second virtual machine at a second router located on the foreign network; and
creating a duplicate mobility binding at the home agent for the duplicate mobile object by obtaining a duplicate care-of-name from the foreign object agent.

35. (Original) The logic of Claim 26, further comprising:
moving a portion of the mobile object to a second virtual machine at a second router located on the foreign network; and
creating a secondary mobility binding at the first router for the portion of the mobile object by obtaining a secondary care-of-name from the foreign object agent.

36. (Currently Amended) An apparatus for registering a mobile object with a foreign network, comprising:

means for storing the mobile object in non-transitory memory;

means for moving **the** a mobile object from a home network to a foreign network in response to unavailable resources at the home network, the mobile object being computer language code operable to be executed by or executed on the home or foreign networks;

means for executing the mobile object on a virtual machine at a router on the foreign network;

means for generating a care-of-name that identifies the mobile object in the foreign network, the care-of-name generated at a foreign object agent located on the foreign network, wherein the care-of-name comprises a fixed orthogonal object name associated with the mobile object and an extension name to uniquely identify the mobile object on the foreign network;

means for communicating the care-of-name to a home object agent located on the home network; and

means for generating a mobility binding at the home object agent for the mobile object, the mobility binding including the care-of-name.

37. (Canceled)

38. (Original) The apparatus of Claim 36, further comprising means for locating the mobile object on the foreign network by using the care-of-name associated with the mobility binding.

39. (Previously presented) The apparatus of Claim 36, further comprising means for generating a care-of-address that uniquely identifies the network location of the mobile object, the care-of-name bound with the care-of-address.

40. (Previously presented) The method of Claim 1, further comprising generating a care-of-address that uniquely identifies the network location of the mobile object, the care-of-name bound with the care-of-address.

41. (Currently amended) The router of Claim 17, **wherein** the mobile object **is** ~~further~~ operable to generate a care-of-address that uniquely identifies the network location of the mobile object, the care-of-name bound with the care-of-address.

42. (Previously presented) The logic of Claim 26, further operable to generate a care-of-address that uniquely identifies the network location of the mobile object, the care-of-name bound with the care-of-address.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 571-272-3947. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dharia Rupal can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Yasin M Barqadle/
Primary Examiner, Art Unit 2456